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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/605,332	09/23/2003	Tim A. Matus	ITW7510.056	2331

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EXAMINER
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SHAW, CLIFFORD C

ART UNIT	PAPER NUMBER
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1725

DATE MAILED: 11/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/605,332

**Applicant(s)**

MATUS ET AL.

**Examiner**

Clifford C. Shaw

**Art Unit**

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 7-16 and 25-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 17-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All. b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**Detailed Action**

1.) Applicant's election with traverse of the restriction requirement in the reply filed on 8/19/2005 is acknowledged. The traversal is on the ground(s) that there is no serious burden to examining all three inventions. This is not found persuasive because the inventions are patentably distinct with a separate status in the art.

The requirement is still deemed proper and is therefore made FINAL.

2.) The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3.) Claims 1, 2, 4, 17-19, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (6,507,004) taken with Shikata et al. (6,051,806). The patent to Ikeda et al. (6,507,004) discloses a welding power supply with features claimed, including: receiving a raw power signal of approximately 115V or alternately, 230V (see column 6, lines 34-50 in Ikeda et al. (6,507,004)); an inverter at element 114; and a controller 116 that controls the output of the inverter by controlling the conduction periods of the inverter switches, i.e., pulse width modulating the conductor switches. The claims differ from Ikeda et al. (6,507,004) in calling for using the power supply for MIG welding, in calling for a CC or CV output, and in calling for particular electrode materials and sizes. These differences do not patentably

Art Unit: 1725

distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have used the power supply taught by Ikeda et al. (6,507,004) for MIG welding and to have provided this power supply with an arrangement for CC and CV outputs, the motivation being the teachings of the patent to Shikata et al. (6,051,806) that these features are advantageous in an inverter based welding power supply (see the inverter based welding power supply in figure 9 and the discussion at columns 4 and 5 of Shikata et al. (6,051,806)). In regard to the limitations directed to electrode composition and size, these differences do not patentably distinguish over the combination. It would have been obvious to have used MIG welding power supply of the above combination to weld any conventional metal, including those claimed. It would have been obvious to have used the particular wire sized claimed, based on routine considerations for choosing MIG electrodes for a particular welding problem.

4.) Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (6,507,004) taken with Shikata et al. (6,051,806) as applied to claims 1, 2, 4, 17 - 19, 22 and 24 above, and further in view of Hedberg (6,713,708). The only aspect of the claim to which the rejection above does not apply is the provision for a power supply weight of approximately 35 pounds. This difference does not patentably distinguish over the prior art. The patent to Hedberg (6,713,708) teaches that inverter based welding power supplies can weigh 36 pounds, i.e., approximately 35 pounds, in contrast to heavier, non-inverter power supplies (see column 1, line 50 through column 2, line 10 in Hedberg (6,713,708)). At the time applicant's invention was made, it would have been obvious to have designed the power supply of Ikeda et al. (6,507,004) for a weight of approximately 35 pounds as claimed, the motivation being to secure

Art Unit: 1725

the advantages of a light weight power supply (e.g., greater portability and ease of movement) afforded by the weight savings inherent in inverter based power supplies. The particular weight of approximately 35 pounds would have been an obvious target to design toward in view of the teachings of Hedberg (6,713,708) that prior inverter based welding power supplies have achieved this weight.

5.) Claims 5 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (6,507,004) taken with Shikata et al. (6,051,806) as applied to claims 1, 2, 4, 17 - 19, 22 and 24 above, and further in view of Kroll (4,508,954). The only aspects of the claims to which the rejection above does not apply are the limitations directed to providing a wire feeder and more particularly a portable wire feeder for the welding power supply. These differences do not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have provided the combination with a wire feeder as claimed, the motivation being the teachings of Kroll (4,508,954) that a portable wire feeder can be usefully connected to a welding power supply (see figure 1, elements 10 and 15 in Kroll (4,508,954)), thereby satisfying the claims.

6.) Claims 6 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (6,507,004) taken with Shikata et al. (6,051,806) as applied to claims 1, 2, 4, 17 - 19, 22 and 24 above, and further in view of Church et al. (6,177,645). The only aspect of the claims to which the rejection above does not apply is the provision for a power factor correction circuit. This difference does not patentably distinguish over the prior art. At the time applicant's

Art Unit: 1725

invention was made, it would have been obvious to have provided the power supply of Ikeda et al. (6,507,004) with a power factor correction circuit, the motivation being the teachings of Church et al. (6,177,645) that a power factor correction circuit is useful in an inverter based welding power supply (see figure 1, element 20 in Church et al. (6,177,645)).


7.) Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (6,507,004) taken with Shikata et al. (6,051,806) as applied to claims 1, 2, 4, 17 - 19, 22 and 24 above, and further in view of Ulrich (6,236,014). The only aspect of the claim to which the rejection above does not apply is the provision for a 400 VDC buss for the inverter in the power supply. This difference does not patentably distinguish over the prior art. At the time applicant's invention was made, it would have been obvious to have provided the power supply of Ikeda et al. (6,507,004) with a buss of 400 volts, the motivation being the teachings of Ulrich (6,236,014) that it is advantageous that in an inverter power supply, "the voltage magnitude of the dc bus signal should be at least greater than the peak voltage of the rectified intermediate signal, preferably at least 10 percent greater".

Any inquiry concerning this communication should be directed to Clifford C Shaw at telephone number 571-272-1182. The examiner can normally be reached on Monday through Friday of the first week of the pay period and on Tuesday through Friday of the second week of the pay period.

Art Unit: 1725

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Thomas G. Dunn, can be reached at 571-272-1171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Clifford C Shaw  
Primary Examiner  
Art Unit 1725

October 31, 2005